defectives admitted to institutions might have been kept at home had the social services been more effective.

An important chapter concerns medical services and several pages are devoted to a discussion of when and how the mothers were first told that their children were defective. The authors admit that they heard one-sided accounts, but in the eyes of the mothers about half the doctors concerned handled the situation badly.

The reviewer may be permitted to present the other side of the problem. Talking to the parents of a mentally defective child is a highly skilled and complicated matter. What is right for one set of parents is not necessarily so for others. It demands sympathy and kindness, which perhaps most doctors possess, sensitivity possessed by fewer and expert knowledge and plenty of time possessed by very few. The reviewer believes that nearly all mothers know very well that their child is defective before the "news is broken" to them. It not infrequently happens that the first doctor to tell the parents is rewarded by their intense hostility, becoming a symbol of a cruel fate and the recipient of the parents' pent up anxiety and undeserved feelings of guilt. In fact the first doctor may be serving a very useful function. The second doctor to discuss the matter usually forms the warmest relationship with the parents.

The medical profession may not be free from blame, but it is difficult to see how matters can be improved. Dr. Tizard and Dr. Grad have performed a useful service in displaying the attitude of the parents to this difficult problem.

It is not possible to do justice to this book in a short review. It is well set out and clearly written and is full of information of great value to all concerned with the diagnosis of mental defect and the care of the defective and his family.

J. P. M. TIZARD

EVOLUTION

Waddington, C. H., *The Nature of Life*. London, 1961. Allen and Unwin. Pp. 131. Price 18s.

POPULARIZATION IN THE best sense, well-written, up-to-the-minute, correct in detail, filled with interest for readers at a variety of levels, is always to be recommended, for specialists' bed-time reading or to keep the twelve-year-olds quiet through lunch. The actual "nature of life" remains as far away as ever, but the five chapters, derived from Lectures given at the University College of the West Indies in 1960, provide, for five different topics, a sense of approaching nearer to the proclaimed goal. The first chapter begins with the methods and the strength of the scientific approach and leads on to problems of emergent evolution, wholes and parts, atomistic versus continuum, consequences of complexity in organization and so forth. It is muddled as a whole, though scintillating in parts, and the main thread of the argument has itself not really emerged from the materials. The second chapter is a straight account of the mechanisms of inheritance, including an understandable introduction to the new units of inheritance, "cistrons" which are different from genes and distinct from mutations (These units of inheritance are of decreasing size in the order given here). The third chapter, on development, reviews the themes of predetermination and flexibility in development, introducing the word "creode", meaning a path determined by the mode of the beginning of a stage in development and not thereafter abandoned. Professor Waddington then discusses the control of development by feedback mechanism in the interaction of genes and shows how synthesis of a substance may restrict the further activity of the initiating gene. When we consider flexibility versus determination in differentiation, the concept of feed-forward is also useful A gene product blocks future activation of other genes which are not so blocked in other developmental paths. The fourth chapter on evolution has a poetical beginning which must be read at a different time of day from the closely woven argument of the later two-thirds on inheritance. The latter includes an account of recent experiments which illustrate how an (environmentally) acquired character can become inherited. Selection in an adverse environment can occasionally lead to an unusual form of the animal in which the establishment of an appropriate mutation is possible. This is not Lamarckism, or even Lysenkoism, because only a few mutant individuals turn up with the new inherited character.

Man himself is subject to selection and a product of evolution. How then can he formulate

a complete picture of the process of which he is a product. In the fifth and final chapter we come to this and related philosophical topics. Human advance no longer occurs by evolution; therefore the raw biological theory is hardly applicable to sociological studies. The balance of populations, of different species living in mutual dependence, has now replaced the theme of the successful individual. The race ahead along the path of successful competition may lead only to a cul-de-sac when the main sources of subsistence dry up. Ethical behaviour is that which carries forward the whole population together, with a continuous cultural development. We are then taken quickly through the problems of free-will and the mechanism of self-awareness, with the conclusion that the centre of our own consciousness is a mystery. To the reviewer this is a rich diet skimmed in creamy gobs from others' pages; many of the sources will be familiar to the readers of this REVIEW. Nevertheless the book is certainly one to recommend, especially as an inseminator.

G. A. HORRIDGE

COMMUNIST CHINA

Chandrasekhar, Sripati. *Red China, An Asian View.* New York, 1961. Praeger Paperbacks. Pp. viii + 230. Price $1.75. Cloth, $4.00.

I STARTED THIS book under a misapprehension: Professor Chandrasekhar is a professor of Demography, and the book has a foreword by Frank Moraes, Editor of the *Indian Express*, which starts: "According to the United Nations *Demographic Yearbook* . . ." Hence I was led to feel that this book would be an academic work on population, such as I have had the pleasure of reading previously for THE EUGENICS REVIEW.

But it is nothing of the sort. *Red China* is one of the many handbooks in a series on "World Communism." It has nothing to do with demography, or eugenics. Mr. Moraes's warning that: "It is in the light of these significant figures [i.e. the United Nations *Yearbook* figures of population, China 690 million, India 405 million, etc.] that the book should be read," is misleading.

This book is about Professor Chandrasekhar and his reactions, emotions, and impressions while on a tour of China in 1958–1959. Professor Chandrasekhar does not tell us how long he stayed in China, but my guess is about eight weeks, possibly ten weeks. He tells us that he had visited China "briefly" during the winter of 1940 as a young student on his way to the United States. Since at that time China was at war with Japan, and half of China under Japanese rule, I wonder which part of China he did visit "briefly" in the winter of 1940? However, the author quite rightly makes no point about having known China "before" and "after," as some do, and in this I commend his sincerity.

I also commend the Professor's candour when he says that he felt "disappointed" during the time he was in China, but at first could not put his finger precisely on the cause of his dismay. Then he tells us. During his gallop tour round China, he said, he did not make a single friend.

I sympathize with the Professor. I myself lived for some years in England, and it is my experience, as it is the experience of many other Asian students, that utter loneliness is the lot of the foreigner for the first months. The Chinese and the British have this in common: they are reserved, cold at first acquaintance, although they prove the most sincere and the staunchest of friends once this outward coldness is broken through. Both in England and in China it takes time to make friends. Whereas in India one is nearly overwhelmed by a warmth, an almost Latin verbosity, excitement, the radiant welcome one gets . . . no wonder Professor Chandrasekhar felt strange in an atmosphere several degrees lower than the one he was accustomed to. In America one makes "friends" at first contact, almost too easily. Yet friendship, like wine, can only be tested over the years. It is my experience that the friends who remain, through thick and thin, are the cold, aloof British, and the cold, "impersonal" Chinese.

If I labour this point, it is because Professor Chandrasekhar himself found his blithe and exuberant Indian spirits so much influenced by this aspect, that he proceeded I am afraid to cast in a mould of hostility everything he saw in China. "Even the most casual observer could see . . . sullen and unhappy . . . distressing . . . impersonal . . ."

Time and again the Professor's *angst* comes out, especially at the end of each chapter. Agri-